

=====

Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866)
217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2010; month=12; day=28; hr=9; min=30; sec=49; ms=138;]

=====

Application No: 10728323 Version No: 3.0

Input Set:

Output Set:

Started: 2010-12-14 14:04:38.691

Finished: 2010-12-14 14:04:39.273

Elapsed: 0 hr(s) 0 min(s) 0 sec(s) 582 ms

Total Warnings: 0

Total Errors: 0

No. of SeqIDs Defined: 84

Actual SeqID Count: 84

SEQUENCE LISTING

<110> Bannon, et al.

<120> Microbial Delivery System

<130> 2006517-0010

<140> 10728323

<141> 2003-12-04

<150> 09/731,375

<151> 2000-12-06

<150> 60/195.035

<151> 2000-04-06

<160> 84

<170> PatentIn version 3.5

<210> 1

<211> 2032

<212> DNA

<213> Arachis hypogaea

<400> 1

aataatcata tatattcatc aatcatctat ataagtagta gcaggagcaa tgagagggag	60
ggttttctcca ctgatgctgt tgctagggat ccttgtctctg gcttcagttt ctgcaacgca	120
tgccaagtca tcaccttacc agaagaaaac agagaacccc tgcgcccaga ggtgcctcca	180
gagttgtcaa caggaaccgg atgacttgaa gcaaaaggca tgcgagtctc gctgcaccaa	240
gctcgagtat gatcctcggt gtgtctatga tctctgagga cactctggca ccaccaacca	300
acgttcccct ccaggggagc ggacacgtgg ccgccaaccc ggagactacg atgatgaccg	360
ccgtcaaccc cgaagagagg aaggaggccg atggggacca gctggaccga gggagcgtga	420
aagagaagaa gactggagac aaccaagaga agattggagg cgaccaagtc atcagcagcc	480
acggaaaata aggccgaag gaagagaagg agaacaagag tggggaacac caggtagcca	540
tgtgagggaa gaaacatctc ggaacaaccc tttctacttc ccgtcaaggc ggtttagcac	600
ccgctacggg aacaaaaacg gtaggatccg ggtcctgcag aggtttgacc aaaggtcaag	660
gcagtttcag aatctccaga atcacggtat tgtgcagatc gaggccaaac ctaacactct	720
tgttcttccc aagcacgctg atgctgataa catccttggt atccagcaag ggcaagccac	780
cgtgaccgta gcaaattggca ataacagaaa gagctttaat cttgacgagg gccatgcact	840
cagaatccca tccggtttca tttcctacat cttgaaccgc catgacaacc agaacctcag	900

agtagctaaa atctccatgc ccgttaacac acccggccag tttgaggatt tcttcccggc 960
 gagcagccga gaccaatcat cctacttgca gggcttcagc aggaatacgt tggaggccgc 1020
 cttcaatgcg gaattcaatg agatacggag ggtgctgtta gaagagaatg caggaggtga 1080
 gcaagaggag agagggcaga ggcgatggag tactcggagt agtgagaaca atgaaggagt 1140
 gatagtcaaa gtgtcaaagg agcacgttga agaacttact aagcacgcta aatccgtctc 1200
 aaagaaaggc tccgaagaag agggagatat caccaacca atcaacttga gagaaggcga 1260
 gcccgatctt tctaacaact ttgggaagtt atttgagggtg aagccagaca agaagaaccc 1320
 ccagcttcag gacctggaca tgatgctcac ctgtgtagag atcaaagaag gagctttgat 1380
 gctcccacac ttcaactcaa aggccatggt tatcgtcgtc gtcaacaaag gaactggaaa 1440
 ccttgaactc gtggctgtaa gaaaagagca acaacagagg ggacggcggg aagaagagga 1500
 ggacgaagac gaagaagagg agggaagtaa cagagaggtg cgtaggtaca cagcgaggtt 1560
 gaaggaaggc gatgtgttca tcatgccagc agctcatcca gtagccatca acgcttcctc 1620
 cgaactccat ctgcttggtc tcggtatcaa cgctgaaaac aaccacagaa tcttccttgc 1680
 aggtgataag gacaatgtga tagaccagat agagaagcaa gcgaaggatt tagcattccc 1740
 tgggtcgggt gaacaagttg agaagctcat caaaaaccag aaggaatctc actttgtgag 1800
 tgctcgtcct caatctcaat ctcaatctcc gtcgtctcct gagaaagagt ctctgagaa 1860
 agaggatcaa gaggaggaaa accaaggagg gaagggcca ctctttcaa ttttgaaggc 1920
 ttttaactga gaatggaggc aacttggtat gtatcgataa taagatcacg cttttgtact 1980
 ctactatcca aaaacttatc aataaataaa aacgtttgtg cgttgtttct cc 2032

<210> 2
 <211> 626
 <212> PRT
 <213> Arachis hypogaea

<400> 2

Met Arg Gly Arg Val Ser Pro Leu Met Leu Leu Leu Gly Ile Leu Val
 1 5 10 15

Leu Ala Ser Val Ser Ala Thr His Ala Lys Ser Ser Pro Tyr Gln Lys
 20 25 30

Lys Thr Glu Asn Pro Cys Ala Gln Arg Cys Leu Gln Ser Cys Gln Gln
 35 40 45

Glu Pro Asp Asp Leu Lys Gln Lys Ala Cys Glu Ser Arg Cys Thr Lys
50 55 60

Leu Glu Tyr Asp Pro Arg Cys Val Tyr Asp Pro Arg Gly His Thr Gly
65 70 75 80

Thr Thr Asn Gln Arg Ser Pro Pro Gly Glu Arg Thr Arg Gly Arg Gln
85 90 95

Pro Gly Asp Tyr Asp Asp Asp Arg Arg Gln Pro Arg Arg Glu Glu Gly
100 105 110

Gly Arg Trp Gly Pro Ala Gly Pro Arg Glu Arg Glu Arg Glu Glu Asp
115 120 125

Trp Arg Gln Pro Arg Glu Asp Trp Arg Arg Pro Ser His Gln Gln Pro
130 135 140

Arg Lys Ile Arg Pro Glu Gly Arg Glu Gly Glu Gln Glu Trp Gly Thr
145 150 155 160

Pro Gly Ser His Val Arg Glu Glu Thr Ser Arg Asn Asn Pro Phe Tyr
165 170 175

Phe Pro Ser Arg Arg Phe Ser Thr Arg Tyr Gly Asn Gln Asn Gly Arg
180 185 190

Ile Arg Val Leu Gln Arg Phe Asp Gln Arg Ser Arg Gln Phe Gln Asn
195 200 205

Leu Gln Asn His Arg Ile Val Gln Ile Glu Ala Lys Pro Asn Thr Leu
210 215 220

Val Leu Pro Lys His Ala Asp Ala Asp Asn Ile Leu Val Ile Gln Gln
225 230 235 240

Gly Gln Ala Thr Val Thr Val Ala Asn Gly Asn Asn Arg Lys Ser Phe
245 250 255

Asn Leu Asp Glu Gly His Ala Leu Arg Ile Pro Ser Gly Phe Ile Ser
260 265 270

Tyr Ile Leu Asn Arg His Asp Asn Gln Asn Leu Arg Val Ala Lys Ile
 275 280 285

Ser Met Pro Val Asn Thr Pro Gly Gln Phe Glu Asp Phe Phe Pro Ala
 290 295 300

Ser Ser Arg Asp Gln Ser Ser Tyr Leu Gln Gly Phe Ser Arg Asn Thr
 305 310 315 320

Leu Glu Ala Ala Phe Asn Ala Glu Phe Asn Glu Ile Arg Arg Val Leu
 325 330 335

Leu Glu Glu Asn Ala Gly Gly Glu Gln Glu Glu Arg Gly Gln Arg Arg
 340 345 350

Trp Ser Thr Arg Ser Ser Glu Asn Asn Glu Gly Val Ile Val Lys Val
 355 360 365

Ser Lys Glu His Val Glu Glu Leu Thr Lys His Ala Lys Ser Val Ser
 370 375 380

Lys Lys Gly Ser Glu Glu Glu Gly Asp Ile Thr Asn Pro Ile Asn Leu
 385 390 395 400

Arg Glu Gly Glu Pro Asp Leu Ser Asn Asn Phe Gly Lys Leu Phe Glu
 405 410 415

Val Lys Pro Asp Lys Lys Asn Pro Gln Leu Gln Asp Leu Asp Met Met
 420 425 430

Leu Thr Cys Val Glu Ile Lys Glu Gly Ala Leu Met Leu Pro His Phe
 435 440 445

Asn Ser Lys Ala Met Val Ile Val Val Val Asn Lys Gly Thr Gly Asn
 450 455 460

Leu Glu Leu Val Ala Val Arg Lys Glu Gln Gln Gln Arg Gly Arg Arg
 465 470 475 480

Glu Glu Glu Glu Asp Glu Asp Glu Glu Glu Glu Gly Ser Asn Arg Glu
 485 490 495

Val Arg Arg Tyr Thr Ala Arg Leu Lys Glu Gly Asp Val Phe Ile Met
500 505 510

Pro Ala Ala His Pro Val Ala Ile Asn Ala Ser Ser Glu Leu His Leu
515 520 525

Leu Gly Phe Gly Ile Asn Ala Glu Asn Asn His Arg Ile Phe Leu Ala
530 535 540

Gly Asp Lys Asp Asn Val Ile Asp Gln Ile Glu Lys Gln Ala Lys Asp
545 550 555 560

Leu Ala Phe Pro Gly Ser Gly Glu Gln Val Glu Lys Leu Ile Lys Asn
565 570 575

Gln Lys Glu Ser His Phe Val Ser Ala Arg Pro Gln Ser Gln Ser Gln
580 585 590

Ser Pro Ser Ser Pro Glu Lys Glu Ser Pro Glu Lys Glu Asp Gln Glu
595 600 605

Glu Glu Asn Gln Gly Gly Lys Gly Pro Leu Leu Ser Ile Leu Lys Ala
610 615 620

Phe Asn
625

<210> 3
<211> 474
<212> DNA
<213> Arachis hypogaea

<400> 3
ctcaccatac tagtagccct cgcccttttc ctctcgcgtg cccacgcac tgcgaggcag 60
cagtgggaac tccaaggaga cagaagatgc cagagccagc tcgagagggc gaacctgagg 120
ccctgcgagc aacatctcat gcagaagatc caacgtgacg aggattcata tgaacgggac 180
ccgtacagcc ctagtcagga tccgtacagc cctagtccat atgatcggag aggcgctgga 240
tcctctcagc accaagagag gtgttgcaat gagctgaacg agtttgagaa caaccaaagg 300
tgcatgtgcy aggcattgca acagatcatg gagaaccaga gcgatagggt gcaggggagg 360
caacaggagc aacagttcaa gagggagctc aggaacttgc ctcaacagtg cggccttagg 420
gcaccacagc gttgcgactt ggacgtcgaa agtggcggca gagacagata ctaa 474

<210> 4
<211> 157
<212> PRT
<213> Arachis hypogaea

<400> 4

Leu Thr Ile Leu Val Ala Leu Ala Leu Phe Leu Leu Ala Ala His Ala
1 5 10 15

Ser Ala Arg Gln Gln Trp Glu Leu Gln Gly Asp Arg Arg Cys Gln Ser
20 25 30

Gln Leu Glu Arg Ala Asn Leu Arg Pro Cys Glu Gln His Leu Met Gln
35 40 45

Lys Ile Gln Arg Asp Glu Asp Ser Tyr Glu Arg Asp Pro Tyr Ser Pro
50 55 60

Ser Gln Asp Pro Tyr Ser Pro Ser Pro Tyr Asp Arg Arg Gly Ala Gly
65 70 75 80

Ser Ser Gln His Gln Glu Arg Cys Cys Asn Glu Leu Asn Glu Phe Glu
85 90 95

Asn Asn Gln Arg Cys Met Cys Glu Ala Leu Gln Gln Ile Met Glu Asn
100 105 110

Gln Ser Asp Arg Leu Gln Gly Arg Gln Gln Glu Gln Gln Phe Lys Arg
115 120 125

Glu Leu Arg Asn Leu Pro Gln Gln Cys Gly Leu Arg Ala Pro Gln Arg
130 135 140

Cys Asp Leu Asp Val Glu Ser Gly Gly Arg Asp Arg Tyr
145 150 155

<210> 5
<211> 1524
<212> DNA
<213> Arachis hypogaea

<400> 5

cggcagcaac cggaggagaa cgcgtgccag ttccagcgcc tcaatgcgca gagacctgac

aatcgcattg aatcagaggg cggttacatt gagacttggg accccaacaa ccaggagttc	120
gaatgcgccg ggcgcgccct ctctcgctta gtctccgcc gcaacgccct tcgtaggcct	180
ttctactcca atgctcccca ggagatcttc atccagcaag gaaggggata ctttggttg	240
atattccctg gttgtctag acactatgaa gagcctcaca cacaaggteg tcatctcag	300
tcccaaagac caccaagacg tctccaagga gaagaccaa gccaacagca acgagatagt	360
caccagaagg tgcaccgttt cgatgagggt gatctcattg cagttcccac cgggtgtgct	420
ttctggctct acaacgacca cgacactgat gttgttgctg tttctcttac tgacaccaac	480
aacaacgaca accagcttga tcagttcccc aggagattca atttggtgg gaacacggag	540
caagagttct taaggtacca gcaacaaagc agacaaagca gacgaagaag cttaccatat	600
agcccatata gcccgcaaag tcagcctaga caagaagagc gtgaatttag ccctcgagga	660
cagcacagcc gcagagaacg agcaggacaa gaagaagaaa acgaagggtg aaacatcttc	720
agcggcttca cgccggagtt cctggaacaa gccttccagg ttgacgacag acagatagtg	780
caaaacctaa gaggcgagac cgagagtga gaagagggag ccattgtgac agtgagggga	840
ggcctcagaa tcttgagccc agatagaaag agacgtgccg acgaagaaga ggaatacga	900
gaagatgaat atgaatacga tgaagaggat agaaggcgtg gcaggggaag cagaggcagg	960
gggaatggtg ttgaagagac gatctgcacc gcaagtgcta aaaagaacat tggtagaaac	1020
agatccctg acatctacaa ccctcaagct ggttcaactca aaactgccaa cgatctcaac	1080
cttctaatac ttaggtggct tggacctagt gctgaatatg gaaatctcta caggaaatgca	1140
ttgtttgtcg ctactacaa caccaacgca cacagcatca tatatcgatt gaggggacgg	1200
gctcacgtgc aagtcgtgga cagcaacggc aacagagtgt acgacgagga gcttcaagag	1260
ggtcacgtgc ttgtggtgcc acagaacttc gccgtcgctg gaaagtcca gagcgagaac	1320
ttcgaatacg tggcattcaa gacagactca aggccagca tagccaacct cgccggtgaa	1380
aactccgtca tagataacct gccggaggag gtggttgcaa attcatatgg cctccaaagg	1440
gagcaggcaa ggcagcttaa gaacaacaac cccttcaagt tcttcgttcc accgtctcag	1500
cagtctccga gggctgtggc ttaa	1524

<210> 6
 <211> 510
 <212> PRT
 <213> Arachis hypogaea

 <400> 6

Ile	Ser	Phe	Arg	Gln	Gln	Pro	Glu	Glu	Asn	Ala	Cys	Gln	Phe	Gln	Arg	1	5	10	15
Leu	Asn	Ala	Gln	Arg	Pro	Asp	Asn	Arg	Ile	Glu	Ser	Glu	Gly	Gly	Tyr	20	25	30	
Ile	Glu	Thr	Trp	Asn	Pro	Asn	Asn	Gln	Glu	Phe	Glu	Cys	Ala	Gly	Val	35	40	45	
Ala	Leu	Ser	Arg	Leu	Val	Leu	Arg	Arg	Asn	Ala	Leu	Arg	Arg	Pro	Phe	50	55	60	
Tyr	Ser	Asn	Ala	Pro	Gln	Glu	Ile	Phe	Ile	Gln	Gln	Gly	Arg	Gly	Tyr	65	70	75	80
Phe	Gly	Leu	Ile	Phe	Pro	Gly	Cys	Pro	Arg	His	Tyr	Glu	Glu	Pro	His	85	90	95	
Thr	Gln	Gly	Arg	Arg	Ser	Gln	Ser	Gln	Arg	Pro	Pro	Arg	Arg	Leu	Gln	100	105	110	
Gly	Glu	Asp	Gln	Ser	Gln	Gln	Gln	Arg	Asp	Ser	His	Gln	Lys	Val	His	115	120	125	
Arg	Phe	Asp	Glu	Gly	Asp	Leu	Ile	Ala	Val	Pro	Thr	Gly	Val	Ala	Phe	130	135	140	
Trp	Leu	Tyr	Asn	Asp	His	Asp	Thr	Asp	Val	Val	Ala	Val	Ser	Leu	Thr	145	150	155	160
Asp	Thr	Asn	Asn	Asn	Asp	Asn	Gln	Leu	Asp	Gln	Phe	Pro	Arg	Arg	Phe	165	170	175	
Asn	Leu	Ala	Gly	Asn	Thr	Glu	Gln	Glu	Phe	Leu	Arg	Tyr	Gln	Gln	Gln	180	185	190	
Ser	Arg	Gln	Ser	Arg	Arg	Arg	Ser	Leu	Pro	Tyr	Ser	Pro	Tyr	Ser	Pro	195	200	205	
Gln	Ser	Gln	Pro	Arg	Gln	Glu	Glu	Arg	Glu	Phe	Ser	Pro	Arg	Gly	Gln	210	215	220	

His Ser Arg Arg Glu Arg Ala Gly Gln Glu Glu Glu Asn Glu Gly Gly
225 230 235 240

Asn Ile Phe Ser Gly Phe Thr Pro Glu Phe Leu Glu Gln Ala Phe Gln
245 250 255

Val Asp Asp Arg Gln Ile Val Gln Asn Leu Arg Gly Glu Thr Glu Ser
260 265 270

Glu Glu Glu Gly Ala Ile Val Thr Val Arg Gly Gly Leu Arg Ile Leu
275 280 285

Ser Pro Asp Arg Lys Arg Arg Ala Asp Glu Glu Glu Glu Tyr Asp Glu
290 295 300

Asp Glu Tyr Glu Tyr Asp Glu Glu Asp Arg Arg Arg Gly Arg Gly Ser
305 310 315 320

Arg Gly Arg Gly Asn Gly Ile Glu Glu Thr Ile Cys Thr Ala Ser Ala
325 330 335

Lys Lys Asn Ile Gly Arg Asn Arg Ser Pro Asp Ile Tyr Asn Pro Gln
340 345 350

Ala Gly Ser Leu Lys Thr Ala Asn Asp Leu Asn Leu Leu Ile Leu Arg
355 360 365

Trp Leu Gly Pro Ser Ala Glu Tyr Gly Asn Leu Tyr Arg Asn Ala Leu
370 375 380

Phe Val Ala His Tyr Asn Thr Asn Ala His Ser Ile Ile Tyr Arg Leu
385 390 395 400

Arg Gly Arg Ala His Val Gln Val Val Asp Ser Asn Gly Asn Arg Val
405 410 415

Tyr Asp Glu Glu Leu Gln Glu Gly His Val Leu Val Val Pro Gln Asn
420 425 430

Phe Ala Val Ala Gly Lys Ser Gln Ser Glu Asn Phe Glu Tyr Val Ala
435 440 445

Phe Lys Thr Asp Ser Arg Pro Ser Ile Ala Asn Leu Ala Gly Glu Asn

450

455

460

Ser Val Ile Asp Asn Leu Pro Glu Glu Val Val Ala Asn Ser Tyr Gly
465 470 475 480

Leu Gln Arg Glu Gln Ala Arg Gln Leu Lys Asn Asn Asn Pro Phe Lys
485 490 495

Phe Phe Val Pro Pro Ser Gln Gln Ser Pro Arg Ala Val Ala
500 505 510

<210> 7
<211> 10
<212> PRT
<213> Arachis hypogaea

<400> 7

Ala Lys Ser Ser Pro Tyr Gln Lys Lys Thr
1 5 10

<210> 8
<211> 10
<212> PRT
<213> Arachis hypogaea

<400> 8

Gln Glu Pro Asp Asp Leu Lys Gln Lys Ala
1 5 10

<210> 9
<211> 10
<212> PRT
<213> Arachis hypogaea

<400> 9

Leu Glu Tyr Asp Pro Arg Leu Val Tyr Asp
1 5 10

<210> 10
<211> 10
<212> PRT
<213> Arachis hypogaea

<400> 10

Gly Glu Arg Thr Arg Gly Arg Gln Pro Gly
1 5 10

<210> 11

<211> 10